

**ABSTRACT**

Methods and apparatus for generating a compressed image from a source image by compressing the source image using a dictionary based lossy compression algorithm that regionally varies the amount of information loss from the source image based on regional image quality levels contained in an image quality mask. The image quality mask can be an alpha channel of the source image, can be stored as a raster map, or can be stored as a resolution independent function. The regional image quality levels in the image quality mask can be determined by a user, automatically generated from the image, or automatically generated from user input. The dictionary based lossy compression algorithm can be a lossy Lempel-Ziv-Welch (LZW) compression algorithm.

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